Title (en)

MOBILE STATION, BASE STATION, COMMUNICATION SYSTEM AND COMMUNICATION METHOD

Title (de)

MOBILSTATION, BASISSTATION, KOMMUNIKATIONSSYSTEM UND KOMMUNIKATIONSVERFAHREN

Title (fr)

STATION MOBILE, STATION DE BASE, SYSTÈME DE COMMUNICATION ET MÉTHODE DE COMMUNICATION

Publication

EP 1976137 A1 20081001 (EN)

Application

EP 07706497 A 20070110

Priority

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- JP 2006009302 A 20060117

Abstract (en)

A disclosed communication system includes multiple mobile stations and a base station. The mobile station maps a pilot channel comprising a CAZAC code to a signal including multiple frequency components arranged at regular intervals in a given frequency band, and transmits a transmission signal including the signal according to scheduling information. The mobile station performs the mapping such that its transmission signal and transmission signals of other mobile stations using different frequency bands become orthogonal to each other on a frequency axis. The base station calculates the correlation between a received signal and a pilot channel replica, performs channel estimation, and demodulates the received signal based on the result of channel estimation. The base station generates the pilot channel replica by mapping a pilot channel comprising a CAZAC code to a signal including multiple frequency components arranged at regular intervals in a given frequency band.

IPC 8 full level

H04B 1/7103 (2011.01); **H04W 76/02** (2009.01); **H04B 1/707** (2011.01); **H04J 1/00** (2006.01); **H04J 13/00** (2011.01); **H04J 13/18** (2011.01); **H04J 13/22** (2011.01); **H04L 5/00** (2006.01); **H04L 27/26** (2006.01); **H04W 72/04** (2009.01); **H04W 76/00** (2009.01)

CPC (source: BR EP KR US)

H04B 1/7103 (2013.01 - EP US); **H04J 13/0059** (2013.01 - BR EP KR US); **H04J 13/22** (2013.01 - EP US); **H04L 5/0048** (2013.01 - EP KR US); **H04L 25/0202** (2013.01 - KR); **H04L 25/022** (2013.01 - KR); **H04L 27/2613** (2013.01 - BR EP KR US); **H04L 27/26134** (2021.01 - BR EP KR US); **H04W 72/04** (2013.01 - KR); **H04W 72/12** (2013.01 - KR); **H04W 74/04** (2013.01 - KR); H04B 1/7103 (2013.01 - BR); H04B 2201/70701 (2013.01 - BR EP US); H04B 2201/709709 (2013.01 - BR EP US); H04J 13/22 (2013.01 - BR); H04L 5/0007 (2013.01 - BR EP US); H04L 5/0037 (2013.01 - BR EP US); H04L 5/0048 (2013.01 - BR); H04L 25/0226 (2013.01 - BR EP US)

Cited by

EP3176988A4; JP2017028716A; KR20170016920A; EP3185498A4; US10389468B2; US11057141B2; US11716120B2; US10305661B2; US10764011B2; US11811697B2

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